MEMORANDUM FOR: All NWS Regional Headquarters, Regional
Maintenance Specialists, Electronic Systems
Analysts, and Electronics Technicians
[Engineering Handbook (EHB)-13, Series II
distribution]

FROM: W/OPS1 - Mark S. Paese

SUBJECT: Transmittal Memorandum for EHB-13 Series II,
Issuance 03-01

1.   <u>Material Transmitted:</u>

Engineering Handbook No. 13 Series II, Advanced Weather
Interactive Processing System (AWIPS), section 3.4, AWIPS
IFPS Installation Instruction Note 1, IFPS 12.2 (Full)

2.   <u>Summary:</u>

AWIPS Software Installation Instruction Note 1, provides
instructions to download, install, and deinstall release
IFPS 12.2 (Full).

3.   <u>Effect on Other Instructions:</u>

Perform the pen and ink changes to the Software Note
Index page section 3.0 in EHB-13 Series II shown in the
table below. File this note in EHB-13, Series II, section
3.4. Move the latest lessons learned to the appropriate
software installation instructions in section 3.1.

	Engineering Handbook Section 3.0	
Section 3.1	Maintenance and Major Releases Software Installation Instructions and Lessons Learned	HTM
Section 3.2	Software Release Notes	HTM
Section 3.3	Software Patch Modification Notes	HTM
Section 3.4	IFPS Installation Instructions	HTM

AWIPS IFPS INSTALLATION INSTRUCTION NOTE 1
(for Electronic Systems Analysts)
Maintenance, Logistics, & Acquisition Division
W/OPS1: FJZ

SUBJECT	**:**	IFPS 12.2 (Full) Installation Instructions
PURPOSE	**:**	To issue IFPS 12.2 (Full) software upgrade installation instructions.
AUTHORIZATION	**:**	The authority for this modification note is Request for Change AA976
AFFECTED SITES	**:**	All AWIPS sites, except RFCs and IFPS 12.1 sites (a separate mod note will address the upgrade of IFPS 12.1 sites to IFPS 12.2, totaling13 sites), must install this release.
VERIFICATION STATEMENT	**:**	The IFPS 12.2 (Full) installation procedures were tested and verified at Silver Spring, MD (NHOW).
PREINSTALLATION: REQUIREMENTS		IFPS 11.3 must be installed.
TIME REQUIRED	**:**	Approximately 2.0 hours
SECURITY LEVEL	**:**	root
TECHNICAL SUPPORT	**:**	For questions or problems regarding these installation instructions or installing this Release, please contact the NCF at 301-713-9344**.**

GENERAL

The IFPS 12.2 (Full) installation upgrade kit includes: install and deinstall instructions, 1 CD, and script log output (with error information).

Note: Refer to the following web address for IFPS 12.2 Release Notes and other IFPS releated material:

http://www.nws.noaa.gov/mdl/icwf/IFPS12.2Full/IFPS12.2.html#InstallationInstructions

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IFPS 12.2 Delivered Functionality

- **Snow Level Phrases in ZFP:** Snow Level forecast phrases is a new ZFP configurable feature in IFPS12. The snow level phrases are generated from a new snow level field in GFE. Initial model data may be loaded into the snow level field just like any other field. Also, like any other field, snow level may be modified, before a final snow level phrase is generated in the zfp.

- **Fire Weather Product Fire Weather Formatter (FWM):** The config_ifps GUI may now be used to create a geography group called fwm_list. Stations and zones added to this geography group will be formatted in the FWM.

- **Management of Zone Temperature Ranges and Weather Types Using the Grid Unloader Configuration Table:** The grid unloader and zone averager now obtain temperature range and weather thresholds for zones by querying the INFORMIX database.

- **Service Backup Version Control:** If the IFPS version number of a failed site does not match the IFPS version number of the site about to serve as backup, the NWS Central Server will transform the configuration data from the failed site in such as way that it may be used with the backup site's IFPS.

- GRIB2 now encodes the following additional weather elements and parameters: QPF and Wx

  A site may set an issuance time for posting its NDFD grids to the NDFD mosaics. A site may accomplish this by selecting GRIB on the Options menu of the Product Generation GUI.

- **GRIB2 bitmasks Defined from GFESuite Edit Areas:** Bitmasks may now be stored as Edit Areas in the ifpServer. Prior to this change, the GRIB2 encoder fetched bitmasks from the maps table of the IFPS relational database.

- **Multiple Marine Products Configuration:** New marine capabilities in IFPS12.2 allow sites to format multiple marine products using different geography information.   The multiple marine products format requires:

    - marine geography groups to exactly match the mar_dfm geography group
    - geography group configuration changes
    - new environment variable settings

    This configuration must be implemented at ALL marine sites.

    Note: New GLF shape files are **not** currently available to configure multiple marine products using multiple marine geography groups. As a result, the software will not support both a GLF and NSH product at a single site. MDL and OS are working on this shapefile. Once this shapefile becomes available, MDL will update the documentation and let you know where to find it.

- **GFE:**   For descriptions and details regarding GFE enhancements available in IFPS12.2, please visit the 'Enhancements' section at:

http://www.md.fsl.noaa.gov/eft/ifps12doc/onlinehelp/CHANGES_BUGS_FIXES_HIGHLIGHTS.html

- GFE enhancements are in the following areas:

    1. User Interface Enhancements
    2. General GFE Enhancements
    3. Smart Initialization Enhancements
    4. Smart Tool Enhancements
    5. Daily Forecast Critique Enhancements
    6. Intersite Coordination Enhancements
    7. Text Product/Infrastructure Enhancements
    8. ifpIMAGE Enhancements

Noted Problems and Workarounds ("News You Can Use")

This section of the IFPS12.2 Release Notes highlights special problems and workarounds for IFPS12.2.

• **Local GFE Formatters and IFPS Support**

IFPS 12.2 introduces a new set of tools inside the grid editor (GFE) that allow each WFO to develop its own set of product generation programs. Instructions needed to begin setting up these Local GFE Formatters are available at:

http://www-md.fsl.noaa.gov/eft/ifps12doc/onlinehelp/TextFormatter.html

It is important to note, these formatters are considered local applications and
cannot be supported through the NCF.

• Some sites which send grids to the NFDF have had problems with points of zero values occurring on the edges of their CWA within the NDFD mosaic. These are zero value points (not missing data) and will show up on the periphery of a site's CWA. The version of IFPS does not matter.

MDL has determined the cause of this problem. It's described below, with some information on how to resolve the problem, should it arise at your office.

Problem: The problem shows up within the NDFD mosaic, as a number of very small points of zero valued data. These zero value points are most often small enough so as to only be easily visible in the regional sections of the NDFD mosaic. These points will not vary between times; they will consistently be zero valued in all times in which the site has submitted grids.

These points occur when a site has limited its grid edit area to the exact border of its CWA.

Minor differences (rounding errors, most likely) in mapping data points to pixels on the NDFD mosaic, and/or mapping the grid edit area to the actual CWA bounds, leaves some points that lie within the CWA with values of zero.

Problem Resolution: The solution is ensure the site prepares forecast grids over its entire ISC_Send_Area. This area generally extends about 10km beyond the CWA borders. This eliminates the mapping problems and the resulting zero valued points. If you have any difficulty adjusting the grid edit area, please contact the NCF/SST for help.

GENERAL INSTALLATION GUIDELINES

- NCF upgrade support is available from 7AM to 7PM EDT, Monday through Thursday.

- OCONUS sites requiring upgrade assistance outside the set support hours on Thursdays, must coordinate through their AWIPS regional focal point. If the NCF is not advised ahead of time, they will assume a scheduled OCONUS site will follow the set support hours.

- A maximum number of five sites per day will be upgraded.

- All IFPS 12.2 upgrades shall be completed by the middle of February 2003

- Prior to the start of installation, sites should designate a potential operational back-up site should their be sufficient cause to transfer operational responsibilities due to install related problems. Site back-up is **NOT** required during IFPS installations.

INSTALLATION PROCEDURE

Refer to Attachment B for install and deinstall instructions.

REPORTING MODIFICATION

Report the completed software installation using the Engineering Management Reporting System (EMRS) according to the instructions in the NWS Instruction 30-2104, Maintenance Documentation, Part 4, and Appendix H. A sample EMRS report is attached. As an additional guide, use the information in the table below.

Block #	Block Type	Information
5	Description	Install IFPS 12.2
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Downloaded and Installed IFPS version 12.2 I.A.W. AWIPS IFPS Installation Instructions Note 1
17a	Mod. No.	IFPS1

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Attachment A - Sample EMRS Report
Attachment B - Installation and Deinstallation Instructions for IFPS 12.2, Sample Output

Attachment A - Sample EMRS Report